CLAIMS

1. A method of producing a print medium, comprising steps of:

a) preparing a coating composition having an acidic pH, said coating composition comprising:

i) a dispersion of inorganic particulates;

ii) a polymeric binder; and

iii) a weak base comprising a salt of an alkali metal and a weak acid; and

b) coating a media substrate with the coating composition to form an ink-receiving layer thereon.

2. A method as in claim 1, further comprising a step of including an acid in the coating composition that is reactive with the weak base.

3. A method as in claim 2, wherein the acid is provided by an acidic cross linking agent.

4. A method as in claim 1, wherein the weak base generates gas bubbles as a result of the acidic pH.

5. A method as in claim 4, wherein the gas bubbles are CO_2 bubbles.

6. A method as in claim 1, wherein the weak base is selected from the group consisting of alkali carbonate salt, alkali bicarbonate salt, and mixtures thereof.

7. A method as in claim 1, wherein the alkali metal is selected from the group consisting of sodium, lithium, and potassium.

8. A method as in claim 7, wherein the alkali metal is sodium.

9. A method as in claim 7, wherein the alkali metal is lithium.

10. A method as in claim 1, wherein the pH of the coating composition is from about 2.0 to about 6.0.

11. A method as in claim 10, wherein the pH of the coating composition is from about 3.0 to about 4.5.

12. A method as in claim 1, wherein the salt is added to the coating composition at from about 0.001 wt% to about 10 wt%.

13. A method as in claim 1, wherein the media substrate is a coated media substrate, and the coating composition is a topcoat to be applied to the coated media substrate.

14. A print medium, comprising:

a) a media substrate; and

b) an ink-receiving layer applied to the media substrate, said ink-receiving layer comprising:

i) a dispersion of inorganic particulates;

ii) a polymeric binder; and

iii) gas generated bubbles located within the ink-receiving layer, wherein the gas generated bubbles are generated by reacting an acid with a weak base comprising a salt of an alkali metal and a weak acid.

15. A print medium as in claim 14, wherein the ink-receiving layer contains excess amounts of the acid.

16. A print medium as in claim 14, wherein the acid is provided by an acidic cross linking agent.

17. A print medium as in claim 14, wherein the ink-receiving layer contains an excess of the weak base.

18. A print medium as in claim 14, wherein the weak base is selected from the group consisting of a carbonate, a bicarbonate, and mixtures thereof.

19. A print medium as in claim 14, wherein the alkali metal is selected from the group consisting of sodium, lithium, and potassium.

20. A print medium as in claim 19, wherein the alkali metal is sodium.

21. A print medium as in claim 19, wherein the alkali metal is lithium.

22. A print medium as in claim 14, wherein the pH of the ink-receiving layer is from about 2.0 to about 6.0.

23. A print medium as in claim 22, wherein the pH of the ink-receiving layer is from about 3.0 to about 4.5.

24. A print medium as in claim 14, wherein the alkali metal is present in the ink-receiving layer at from about 0.4 wt% to about 10 wt%.

25. A print medium as in claim 14, wherein the ink-receiving layer has an average thickness of from about 10 μm to about 60 μm.

26. A print medium as in claim 14, wherein the bubbles have an average diameter of less than about 10 μm.

27. A print medium as in claim 26, wherein the bubbles have an average diameter of from about 0.01 μm to about 0.1 μm

28. A print medium as in claim 14, wherein the media substrate is a coated media substrate, and the ink-receiving layer is applied as a topcoat to the coated media substrate.

29. A print medium as in claim 28, wherein the ink-receiving layer has an average thickness of from about 0.1 μm to about 10 μm.

30. A print medium as in claim 29, wherein the alkali metal concentration in the ink-receiving layer applied as a topcoat is greater than is present in the coated media substrate.

31. A printed image on a print medium, comprising:

a) a media substrate;

b) an ink-receiving layer applied to the media substrate, said ink-receiving layer comprising;

i) a dispersion of inorganic particulates;

ii) a polymeric binder; and

iii) a salt of an alkali metal and a carbonate or bicarbonate species; and

c) an ink-jet ink printed on at least a portion of the ink-receiving layer.

32. A printed image as in claim 31, wherein the ink-receiving layer also includes an acid reactive with the salt.

33. A printed image as in claim 32, wherein the acid is provided by an acidic cross linking agent.

34. A printed image as in claim 31, wherein the ink-receiving layer contains an excess of the carbonate or bicarbonate species.

35. A printed image as in claim 32, wherein the acid and the salt generate CO_2 bubbles, said CO_2 bubbles providing voids which remain present in the ink-receiving layer.

36. A printed image as in claim 31, wherein the alkali metal is selected from the group consisting of sodium, lithium, and potassium.

37. A printed image as in claim 36, wherein the alkali metal is sodium.

38. A printed image as in claim 36, wherein the alkali metal is lithium.

39. A printed image as in claim 31, wherein the pH of the ink-receiving layer is from about 2.0 to about 6.0.

40. A printed image as in claim 39, wherein the pH of the ink-receiving layer is from about 3.0 to about 4.5.

41. A printed image as in claim 31, wherein the alkali metal is present in the ink-receiving layer at from about 0.4 wt% to about 10 wt%.

42. A printed image as in claim 31, wherein the ink-receiving layer has an average thickness of from about 10 μm to about 60 μm.

43. A printed image as in claim 35, wherein the bubbles have an average diameter of less than about 10 μm.

44. A printed image as in claim 35, wherein the bubbles have an average diameter of from about 0.01 μm to about 0.1 μm.

45. A printed image as in claim 31, wherein the media substrate is a coated media substrate, and the ink-receiving layer is applied as a topcoat to the coated media substrate.

46. A printed image as in claim 45, wherein the ink-receiving layer has an average thickness of from about 0.1 μm to about 10 μm.

47. A printed image as in claim 46, wherein the alkali metal concentration in the ink-receiving layer applied as a topcoat is greater than is present in the coated media substrate.